WHAT IS CLAIMED IS:

1. An apparatus comprising:

a light source;

an objective;

a first detector means for detecting light of a first defined wavelength range;

a second detector means for detecting light of a second defined wavelength range;

a first filter means for filtering light of a third defined wavelength range;

a second filter means for filtering light of a fourth defined wavelength range;

a support having a pinhole therein through which collected light from said objective is preferentially passed to said first detector means and said second detector means as opposed to out of focus scattered light; and,

a transparent substrate for support of a sample under investigation, said sample comprising membrane vesicles including a trifunctional linker molecule including a fluorophore.

2. The apparatus of claim 1 wherein said objective is a converging lens.

3. The apparatus of claim 1 wherein said first filter means and said second filter means are dichroic mirrors.

4. The apparatus of claim 1 wherein said first filter means is a longpass optical filter reflecting excitation wavelengths and passing fluorescence emission wavelengths and said second filter means spectrally resolves said fluorescence emission wavelengths.

5. The apparatus of claim 3 wherein said first dichroic mirror reflects wavelengths below 500 nm and passes wavelengths above 500 nm and said second dichroic mirror reflects wavelengths below 550 nm and passes wavelengths above 550 nm.

6. The apparatus of claim 1 wherein said transparent substrate is of glass.

7. The apparatus of claim 1 wherein said apparatus is characterized as having a single detection channel.

8. A method of detecting a binding event between biomolecules comprising:

admixing a target molecule including a first fluorophore and membrane vesicles including a trifunctional linker molecule, said trifunctional linker molecule including a second fluorophore, to form a sample;

introducing a library of elements into said sample, each of said library elements having a binding affinity for said trifunctional linker molecule; and,

screening said sample for fluorescence from said first fluorophore and said second fluorophore, such fluorescence indicative of a binding event between an element from said library of elements and said target molecule.

9. The method of claim 8 wherein said screening of said sample for a binding event includes monitoring for correlations in the fluorescence light intensity measured by spectrally resolved detectors.

10. The method of claim 8 wherein said screening of said sample for a binding event includes monitoring for temporal durations that result from diffusion coefficients by target molecules bound to said membrane vesicles.

11. The method of claim 8 wherein said first fluorophore is a green fluorophore and said second fluorophore is a red fluorophore.

12. The method of claim 8 wherein said second fluorophore is a red fluorophore.

13. A method of detecting a binding event between biomolecules comprising:

admixing a target molecule including a first fluorophore and membrane vesicles including a trifunctional linker molecule to form a sample, said membrane vesicles including a second fluorophore selected from the group of amphiphilic fluorophores or dye molecules encapsulated within said membrane vesicles;

introducing a library of elements into said sample, each of said library elements having a binding affinity for said trifunctional linker molecule; and,

screening said sample for fluorescence from said first fluorophore and said second fluorophore, such fluorescence indicative of a binding event between an element from said library of elements and said target molecule.

14. The method of claim 13 wherein said screening of said sample for a binding event includes monitoring for correlations in the fluorescence light intensity measured by spectrally resolved detectors.

15. The method of claim 13 wherein said screening of said sample for a binding event includes monitoring for temporal durations that result from diffusion coefficients by target molecules bound to said membrane vesicles.